

**AMENDMENTS TO THE CLAIMS**

Claims 1-18 (canceled)

19. (New) A surgical tool comprising a cutting surface having fewer than about 10 pores per square centimeter that are greater than about 15 nanometers in size.
20. (New) The surgical tool of claim 19, wherein the cutting surface has no pores that are greater than about 15 nanometers in size.
21. (New) The surgical tool of claim 19, wherein the cutting surface has fewer than about 10 pores per square centimeter that are greater than about 12 nanometers in size.
22. (New) The surgical tool of claim 21, wherein the cutting surface has no pores that are greater than about 12 nanometers in size.
23. (New) The surgical tool of claim 19, wherein the cutting surface has fewer than about 10 pores per square centimeter that are greater than about 10 nanometers in size.
24. (New) The surgical tool of claim 23, wherein the cutting surface has no pores that are greater than about 10 nanometers in size.

25. (New) The surgical tool of claim 19, wherein the cutting surface has fewer than about 10 pores per square centimeter that are greater than about 5 nanometers in size.
26. (New) The surgical tool of claim 25, wherein the cutting surface has no pores that are greater than about 5 nanometers in size.
27. (New) The surgical tool of claim 19, wherein the cutting surface has fewer than about 10 pores per square centimeter that are greater than about 5 angstroms in size.
28. (New) The surgical tool of claim 19, wherein the cutting surface comprises carbide.
29. (New) The surgical tool of claim 28, wherein the cutting surface comprises nickel binder carbide.
30. (New) The surgical tool of claim 28, wherein the cutting surface comprises tungsten carbide.
31. (New) The surgical tool of claim 30, wherein the cutting surface comprises nickel binder tungsten carbide.

32. (New) The surgical tool of claim 31, wherein the cutting surface comprises nickel binder tungsten carbide having a composition of about 88.5 percent tungsten carbide and about 11.5 percent nickel alloy binder.
33. (New) The surgical tool of claim 32, wherein the cutting surface has fewer than about 10 pores per square centimeter that are greater than about 12 nanometers in size.
34. (New) The surgical tool of claim 32, wherein the cutting surface has fewer than about 10 pores per square centimeter that are greater than about 10 nanometers in size.
35. (New) The surgical tool of claim 32, wherein the cutting surface has fewer than about 10 pores per square centimeter that are greater than about 5 nanometers in size.
36. (New) The surgical tool of claim 32, wherein the cutting surface has fewer than about 10 pores per square centimeter that are greater than about 5 angstroms in size.
37. (New) The surgical tool of claim 32, wherein the cutting surface comprises at least one of titanium carbide, tantalum carbide, vanadium carbide, zirconium carbide,

hafnium carbide, cerium carbide, manganese carbide, thorium carbide, and niobium carbide.

38. (New) The surgical tool of claim 32, wherein the cutting surface comprises cobalt binder carbide.
39. (New) The surgical tool of claim 19, wherein the cutting surface comprises a material having a density of at least about  $14 \text{ g/cm}^3$ .
40. (New) The surgical tool of claim 39, wherein the cutting surface comprises a material having a density of about  $14 \text{ g/cm}^3$  to about  $17 \text{ g/cm}^3$ .
41. (New) The surgical tool of claim 40, wherein the cutting surface comprises a material having a density of about  $15 \text{ g/cm}^3$ .
42. (New) The surgical tool of claim 40, wherein the cutting surface comprises a material having a density of about  $14.3$  to  $14.9 \text{ g/cm}^3$ .
43. (New) The surgical tool of claim 19, further comprising a body portion to which the cutting surface is affixed.

44. (New) The surgical tool of claim 43, wherein the cutting surface and the body portion are made of different materials.
45. (New) The surgical tool of claim 44, wherein the cutting surface comprises tungsten carbide.
46. (New) The surgical tool of claim 45, wherein the cutting surface comprises nickel binder tungsten carbide.
47. (New) The surgical tool of claim 19, wherein the cutting surface is integrally formed with a body portion.
48. (New) The surgical tool of claim 47, wherein the cutting surface and the body portion are made of tungsten carbide.
49. (New) The surgical tool of claim 48, wherein the cutting surface and the body portion are made of nickel binder tungsten carbide.
50. (New) A surgical tool comprising:  
a body portion; and  
a cutting surface affixed to the body portion, the cutting surface being made of nickel binder tungsten carbide having a density of at least  $14 \text{ g/cm}^3$ , and the cutting

surface having fewer than about 10 pores per square centimeter that are greater than about 5 nanometers in size.

51. (New) A surgical tool comprising:  
a body portion made of nickel binder tungsten carbide having a density of at least 14 g/cm<sup>3</sup>; and  
a cutting surface integrally formed with the body portion, the cutting surface being made of nickel binder tungsten carbide having a density of at least 14 g/cm<sup>3</sup>, and the cutting surface having fewer than about 10 pores per square centimeter that are greater than about 5 nanometers in size.
52. (New) A method of making the surgical tool defined by claim 19, comprising:  
machining the cutting surface; and  
polishing the cutting surface until it has fewer than about 10 pores per square centimeter that are greater than about 15 nanometers in size.
53. (New) The method of claim 52, wherein the cutting surface comprises carbide, and the machining step comprises grinding the carbide with a diamond wheel.
54. (New) The method of claim 53, wherein the polishing step comprises rubbing the cutting surface with diamond polishing compound.

- 55. (New) The method of claim 54, wherein the polishing step comprises honing the cutting surface to a mirror-like finish.
- 56. (New) The method of claim 55, further comprising affixing the cutting surface to a body portion of the surgical tool.
- 57. (New) The method of claim 52, wherein the polishing step comprises honing the cutting surface to a mirror-like finish.
- 58. (New) A method of making the surgical tool defined by claim 19, comprising processing the cutting edge with hot isostatic pressing so that it has fewer than about 10 pores per square centimeter that are greater than about 15 nanometers in size.
- 59. (New) A method of making the surgical tool defined by claim 19, comprising forming the cutting edge with fine grade carbide particles.
- 60. (New) A method of making the surgical tool defined by claim 43, comprising affixing the cutting surface to a body portion of the surgical tool.